

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application. Please amend claims 17 and 34, as follows:

1-16. (Canceled).

17. (Currently amended) A process for manufacturing elastomeric components of a tyre for a vehicle wheel, the process comprising:

feeding a continuous elongated element from a delivery member by exerting a feeding pressure on an elastomeric material inside the delivery member;

rotating a building support around a geometrical rotation axis of the building support;

carrying out controlled relative displacements between the delivery member and the building support to form a tyre component;

stopping the feeding of the elongated element when formation of the tyre component is complete; and

exerting a counter-pressure inside the delivery member for a period of time after stopping the feeding such that the pressure inside the delivery member drops to between about 10 bars and about 50 bars, wherein the counter-pressure and the period of time are predetermined to result in the elastomeric material inside the delivery member reaching a sufficient pressure to ensure reproducibility of the elongated element;

wherein feeding the elongated element assists application of the elongated element onto the building support,

wherein rotating the building support assists circumferential distribution of the elongated element on the building support,

wherein carrying out controlled relative displacements assists transverse distribution of the elongated element on the building support, and

wherein the tyre component is defined by a plurality of coils laid in a preestablished deposition pattern depending on a predetermined cross-section outline to be given to the tyre component.

18. (Previously presented) The process of claim 17, wherein the delivery member comprises:

an extrusion screw;

a gear pump associated with the extrusion screw downstream of the extrusion screw; and

an outlet die associated downstream of the gear pump;

wherein the gear pump has a first rotation direction during feeding the elongated element.

19. (Previously presented) The process of claim 18, wherein when the counter-pressure is exerted, the gear pump carries out a counter-rotation relative to the first rotation direction.

20. (Previously presented) The process of claim 18, wherein stopping the feeding comprises stopping movement of the gear pump in a period of time greater than or equal to about 0.1 seconds and less than or equal to about 8 seconds.

21. (Previously presented) The process of claim 18, wherein during stopping the feeding, pressure downstream of the gear pump decreases to a value greater than or equal to about 150 bars and less than or equal to about 400 bars.

22. (Previously presented) The process of claim 20, wherein after stopping movement of the gear pump, the gear pump keeps at a standstill for a period of time greater than or equal to about 0.1 seconds and less than or equal to about 3 seconds.

23. (Previously presented) The process of claim 22, wherein while the gear pump keeps at a standstill, pressure downstream of the gear pump decreases to a value greater than or equal to about 150 bars and less than or equal to about 200 bars.

24. (Previously presented) The process of claim 19, wherein the counter-rotation of the gear pump is carried out for a period of time greater than or equal to about 1 second and less than or equal to about 5 seconds.

25. (Previously presented) The process of claim 19, wherein during the counter-rotation of the gear pump, the gears of the gear pump rotate through an angle greater than or equal to about 10° and less than or equal to about 40°.

26. (Previously presented) The process of claim 19, wherein at the end of the counter-rotation of the gear pump, pressure downstream of the gear pump is greater than or equal to about 10 bars and less than or equal to about 50 bars.

27. (Previously presented) The process of claim 17, wherein feeding the elongated element restarts after a time gap greater than or equal to about 1.2 seconds and less than or equal to about 16 seconds from stopping the feeding of the elongated element.

28. (Previously presented) The process of claim 27, wherein the time gap substantially corresponds to a time required for positioning a subsequent tyre being built close to the delivery member.

29. (Previously presented) The process of claim 17, wherein the building support is a substantially rigid toroidal support.

30. (Previously presented) The process of claim 17, wherein the building support comprises a varying surface configuration.

31. (Previously presented) The process of claim 30, wherein the surface configuration varies from a substantially cylindrical configuration to a substantially toroidal configuration.

32. (Previously presented) The process of claim 17, wherein the building support comprises a substantially cylindrical outer surface.

33. (Previously presented) The process of claim 17, wherein the feeding pressure inside the delivery member is greater than or equal to about 200 bars and less than or equal to about 650 bars.

34. (Currently amended) A process for manufacturing elastomeric components of a tyre for a vehicle wheel, the process comprising:

- feeding a continuous elongated element from a delivery member by exerting a feeding pressure on an elastomeric material inside the delivery member;
- rotating a building support around a geometrical rotation axis of the building support;
- carrying out controlled relative displacements between the delivery member and the building support to form a tyre component;
- stopping the feeding of the elongated element when formation of the tyre component is complete; and
- exerting a counter-pressure inside the delivery member for a period of time after stopping the feeding, wherein the counter-pressure and the period of time are predetermined to result in the elastomeric material inside the delivery member reaching a sufficient pressure to ensure reproducibility of the elongated element;
- wherein feeding the elongated element assists application of the elongated element onto the building support,
- wherein rotating the building support assists circumferential distribution of the elongated element on the building support,
- wherein carrying out controlled relative displacements assists transverse distribution of the elongated element on the building support, and
- wherein the tyre component is defined by a plurality of coils laid in a preestablished deposition pattern depending on a predetermined cross-section outline to be given to the tyre component,

wherein feeding the elongated element restarts after a time gap substantially corresponding to a time required for positioning a subsequent tyre being built close to the delivery member.

35. (Previously presented) The process of claim 34, wherein the delivery member comprises:

an extrusion screw;

a gear pump associated with the extrusion screw downstream of the extrusion screw; and

an outlet die associated downstream of the gear pump;

wherein the gear pump has a first rotation direction during feeding the elongated element.

36. (Previously presented) The process of claim 35, wherein when the counter-pressure is exerted, the gear pump carries out a counter-rotation relative to the first rotation direction.

37. (Previously presented) The process of claim 35, wherein stopping the feeding comprises stopping movement of the gear pump in a period of time greater than or equal to about 0.1 seconds and less than or equal to about 8 seconds.

38. (Previously presented) The process of claim 35, wherein during stopping the feeding, pressure downstream of the gear pump decreases to a value greater than or equal to about 150 bars and less than or equal to about 400 bars.

39. (Previously presented) The process of claim 37, wherein after stopping movement of the gear pump, the gear pump keeps at a standstill for a period of time greater than or equal to about 0.1 seconds and less than or equal to about 3 seconds.

40. (Previously presented) The process of claim 39, wherein while the gear pump keeps at a standstill, pressure downstream of the gear pump decreases to a value greater than or equal to about 150 bars and less than or equal to about 200 bars.

41. (Previously presented) The process of claim 36, wherein the counter-rotation of the gear pump is carried out for a period of time greater than or equal to about 1 second and less than or equal to about 5 seconds.

42. (Previously presented) The process of claim 36, wherein during the counter-rotation of the gear pump, the gears of the gear pump rotate through an angle greater than or equal to about 10° and less than or equal to about 40°.

43. (Previously presented) The process of claim 36, wherein at the end of the counter-rotation of the gear pump, pressure downstream of the gear pump is greater than or equal to about 10 bars and less than or equal to about 50 bars.

44. (Previously presented) The process of claim 34, wherein the time gap is greater than or equal to about 1.2 seconds and less than or equal to about 16 seconds from stopping the feeding of the elongated element.

45. (Previously presented) The process of claim 34, wherein the building support is a substantially rigid toroidal support.

46. (Previously presented) The process of claim 34, wherein the building support comprises a varying surface configuration.

47. (Previously presented) The process of claim 46, wherein the surface configuration varies from a substantially cylindrical configuration to a substantially toroidal configuration.

48. (Previously presented) The process of claim 34, wherein the building support comprises a substantially cylindrical outer surface.